

Claims

What is claimed is:

1. A method for performing a transaction in a network environment, comprising:
receiving content on a first digital information appliance, said content including an
encapsulated transaction object;
monitoring usage of the content;
identifying a utilization event of the monitored usage; and
storing an occurrence of the utilization event in the transaction object
wherein the transaction object is capable of transmitting data related to the stored
occurrence of the utilization event over a network.
2. The method as described in claim 1, further comprising requesting content
over a network connection.
3. The method as described in claim 2, wherein the request is made utilizing a
request object.
4. The method as described in claim 3, wherein the request object includes a
request dynamic base object, including a request interface dynamic base object and a request
implementation dynamic base object.
5. The method as described in claim 4, wherein the request is made to the
request interface dynamic base object, the request interface dynamic base object passes the
request to a request implementation dynamic base object, the request implementation
dynamic base object capable of negotiating among a plurality of content objects a desired
content object based upon a user-defined criterion.

1 6. The method as described in claim 5, wherein the user-defined criterion
2 includes at least one of cost, pricing structure and compatibility of the content object with
3 the digital information appliance and the plurality of content objects reside on a plurality of
4 digital information appliances, the plurality of digital information appliances accessible to
5 the first digital information appliance over the network.

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1 7. The method as described in claim 1, wherein the network connection is not
2 available, saving the occurrence of the utilization event until the network connection is
3 available, at which time data related to the stored occurrence of the utilization event is
4 transmitted.

1 8. The method as described in claim 1, wherein the transaction object includes
2 a first occurrence of the transaction object including a transaction interface dynamic base
3 object and a second occurrence of the transaction object including a transaction
4 implementation dynamic base object.

1 9. The method as described in claim 8, wherein the transaction implementation
2 dynamic base object is capable of supporting a plurality of payment algorithms, the payment
3 algorithms capable of being modified without modifying the transaction interface dynamic
4 base object.

1 10. The method as described in claim 8, wherein the first occurrence of the
2 transaction object transmits data related to the stored occurrence of the utilization event to
3 the second occurrence of the transaction object, the second occurrence of the transaction
4 object residing on a second digital information appliance.

1 11. The method as described in claim 10, wherein the second digital information
2 appliance is a central transaction authenticator, the central transaction authenticator capable

1 13. A digital information appliance system for performing a transaction in a
2 network environment, comprising:

3 a processor for executing a program of instructions on a digital information
4 appliance;

5 a network connection device coupled to the processor for connecting the digital
6 information appliance to a network; and

7 a memory coupled to the processor for storing the program of instructions, wherein
8 the program of instructions configures the digital information appliance to:

9 receive content on the digital information appliance, said content including an

10 encapsulated transaction object;

11 monitor usage of the content;

12 identify a utilization event of the monitored usage; and

13 store an occurrence of the utilization event in the transaction object

14 wherein the transaction object is capable of transmitting data related to the stored
15 occurrence of the utilization event over a network.

1 14. The digital information appliance system as described in claim 13, further
2 comprising requesting content over the network.

1 15. The digital information appliance system as described in claim 14, wherein
2 the request is made utilizing a request object.

1 16. The digital information appliance system as described in claim 15, wherein
2 the request object includes a request dynamic base object, including a request interface
3 dynamic base object and a request implementation dynamic base object.

1 17. The digital information appliance system as described in claim 16, wherein
2 the request is made to the request interface dynamic base object, the request interface

dynamic base object passes the request to a request implementation dynamic base object, the request implementation dynamic base object capable of negotiating among a plurality of content objects a desired content object based upon a user-defined criterion.

18. The digital information appliance system as described in claim 17, wherein the user-defined criterion includes at least one of cost, pricing structure and compatibility of the content object with the digital information appliance and the plurality of content objects reside on a plurality of digital information appliances, the plurality of digital information appliances accessible to the first digital information appliance over the network.

19. The digital information appliance system as described in claim 13, wherein the network connection is not available, saving the occurrence of the utilization event until the network connection is available, at which time data related to the stored occurrence of the utilization event is transmitted.

20. The digital information appliance system as described in claim 13, wherein the transaction object includes a first occurrence of the transaction object including a transaction interface dynamic base object and a second occurrence of the transaction object including a transaction implementation dynamic base object.

21. The digital information appliance system as described in claim 20, wherein the transaction implementation dynamic base object is capable of supporting a plurality of payment algorithms, the payment algorithms capable of being modified without modifying the transaction interface dynamic base object.

22. The digital information appliance system as described in claim 20, wherein the first occurrence of the transaction object transmits data related to the stored occurrence of the utilization event to the second occurrence of the transaction object, the second

occurrence of the transaction object residing on a second digital information appliance.

23. The digital information appliance system as described in claim 22, wherein the second digital information appliance is a central transaction authenticator, the central transaction authenticator capable of storing and updating user account information.

24. The digital information appliance system as described in claim 13, wherein the content is provided by at least one of media and network connection.

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1 25. A system for implementing a transaction, comprising:
2 means for transmitting a request that requires a transaction, said transmitting means
3 including an interface for interfacing with an application generating the request;
4 means for authorizing the transaction, said authorizing means including a first
5 implementation for receiving the request, authorizing the transaction, and for transmitting
6 authorization of the transaction; and
7 means for executing the task, said executing means including a second
8 implementation for receiving authorization of the transaction and for transmitting a result of
9 the task to said transmitting means.

1 26. The system as described in claim 25, said transmitting means, said authorizing
2 means, and said executing means being coupled via a network.

1 27. The system as described in claim 25, said transmitting means being a first
2 computer system, said authorizing means being a second computer system and said
3 executing means being a third computer system, said first, second and third systems being
4 coupled via a network.

1 28. The system as described in claim 25, further comprising means for
2 administering control between said transmitting means, said authorizing means and said
3 executing means.

1 29. The system as described in claim 25, further comprising means for
2 administering control between said transmitting means, said authorizing means and said
3 executing means, said administering means coupling said transmitting means and said
4 authorizing means.

1 30. The system as described in claim 25, further comprising means for

2 administering control between said transmitting means, said authorizing means and said
3 executing means, said administering means coupling said transmitting means and said
4 authorizing means, and terminating control upon establishing coupling.

1 31. A system as claimed in claim 25, said transmitting means including a first
2 administrator and said authorizing means including a second administrator, wherein said first
3 administrator locates said second administrator such that said first and second administrators
4 couple said transmitting means with said authorizing means.

1 32. A system as claimed in claim 25, said transmitting means including a first
2 administrator and said executing means including a second administrator, wherein said first
3 administrator locates said second administrator such that said first and second administrators
4 couple said transmitting means with said executing means.

1 33. A distributed object method for transaction control, comprising:
2 receiving a command to perform a task;
3 determining whether the task has been paid for by querying a counter object;
4 in the event the task has been paid for, incrementing the counter object; and
5 performing the task.

1 34. A method as claimed in claim 33, further comprising the step of, in the event
2 the task has not been paid for, determining whether to perform the task and to defer billing
3 for the task.

1 35. A method as claimed in claim 33, further comprising the steps of, in the event
2 the task has not been paid for, determining whether to perform the task and to defer billing
3 for the task, in the event it is determined to perform the task and to defer the billing,
4 incrementing the counter object and performing the task.

1 36. A method as claimed in claim 33, further comprising the steps of, in the event
2 the task has not been paid for, determining whether to perform the task and to defer billing
3 for the task, in the event it is determined to perform the task and to defer the billing,
4 incrementing the counter object, performing the task, and determining whether account
5 information is accessible.

1 37. A method as claimed in claim 33, further comprising the steps of, in the event
2 the task has not been paid for, determining whether to perform the task and to defer billing
3 for the task, in the event it is determined to perform the task and to defer the billing,
4 incrementing the counter object, performing the task, determining whether account
5 information is accessible, and, in the event account information is available, adjusting the
6 account information according to the incremented object.

1 38. A business process feature for providing transaction control of resource
2 sharing over an information appliance network, comprising:
3 a transaction engine for compiling billing and credit information for transactions of
4 resources between at least one user and at least one resource provider
5 according to the business models of each of said resource providers; and
6 a transaction server capable of communicating with said transaction engine via said
7 information appliance network, said transaction server managing accounts for
8 said at least one user and said at least one resource provider;
9 wherein said transaction engine provides said compiled billing information to said
10 transaction server so that said transaction server may distribute compensation
11 for said transactions between said user and resource provider accounts.

1 39. The business process as recited in claim 38, wherein each of said resource
2 providers may employ multiple business models and wherein said transaction engine may
3 select a desired one of said business models.